

What is claimed is:

1. A fuel cell system comprising:
a fuel cell;
5 an exhaust gas passage for allowing an exhaust gas from the fuel cell to flow through; and
an impurity removal member placed in the exhaust gas passage for removing impurities contained in moisture particles mixed in the exhaust gas.
- 10 2. The fuel cell system according to claim 1, wherein the impurity removal member is provided in the exhaust gas passage of a hydrogen circulation system.
3. The fuel cell system according to claim 1 or 2, wherein a gas-liquid separator is provided in the exhaust gas passage, and the impurity removal
15 member is placed on the inside wall surface of the gas-liquid separator.
4. The fuel cell system according to claim 1 or 2, wherein a gas-liquid separator is provided in the exhaust gas passage, and the impurity removal member is placed in such a manner that a space is formed between the inside
20 wall surface of the gas-liquid separator and the outside surface of the impurity removal member.
5. The fuel cell system according to claim 3 or 4, wherein the impurity removal member is configured so that it increases a flow resistance the closer it is
25 to a gas outlet of the gas-liquid separator.

6. The fuel cell system according to claim 1 or 2, wherein a gas-liquid separator is provided in the exhaust gas passage, and the impurity removal member is located downstream from the gas-liquid separator.

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7. The fuel cell system according to any one of claims 1 to 6, wherein the impurity removal member is treated to make it water-repellent.

8. The fuel cell system according to claim 7, wherein a water-repellent member is placed on the outside surface of the impurity removal member.

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9. The fuel cell system according to claim 7, wherein the impurity removal member is put in a container made of a water-repellent member.

10. The fuel cell system according to any one of claims 1 to 9, wherein an accommodating member capable of changing its shape in response to changes in the volume of the impurity removal member is provided.

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11. The fuel cell system according to claim 10, wherein the accommodating members are distributed in the impurity removal member.

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12. The fuel cell system according to claim 10 or 11, wherein the accommodating member is placed around the outside surface of the impurity removal member.

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13. The fuel cell system according to any one of claims 10 to 12, wherein the accommodating member is made of a porous material.

14. The fuel cell system according to claim 10 wherein the impurity removal
5 member is provided inside the gas-liquid separator, and the accommodating member includes an elastic member and is located at a position outside the gas-liquid flow path of the gas-liquid separator.

15. The fuel cell system according to any one of claims 1 to 14, wherein the
10 impurity removal member contains an ion exchange resin.